

Remarks

The Office Action mailed April 18, 2005 has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-7 and 9-22 are now pending in this application, with entry of this amendment. Claims 1-5 have been allowed. Claims 6, 7, 11-16, and 19-22 stand rejected. Claims 8-10, 17, and 18 stand objected to. Claim 8 has been cancelled.

No extension of time is believed necessary for entry of this Amendment. However, the Commissioner is hereby authorized to consider this a request for the necessary extension of time, if one is needed, and to charge the fee for this extension and any other fees necessary for entry of this Amendment (including fees for additional claims, if the amount authorized on the Transmittal is insufficient) to the Deposit Account indicated in the accompanying Transmittal.

A replacement sheet of formal drawings is included to replace sheet 6 of the formal drawings (containing Figure 8) submitted with the original application. The formal drawings submitted with the original application were intended to replace the informal drawings also submitted therewith. The corrections on the replacement formal drawing replacing sheet 6 of the original formal drawings are as follows:

The equation $\text{TAN} U = \frac{D}{(D - D \text{ SEC} \alpha) \text{ SIN} \alpha}$ has been replaced by

$$\text{TAN } \varphi = \frac{\Delta}{(D - \text{SEC} \alpha) \text{ SIN} \alpha}.$$

The legend $Z \text{ SHIFT} = D$ has been changed to $Z \text{ SHIFT} = \Delta$.

The angle between lines 304 and 310 has been changed from U to φ .

The angle with indicated measurement a has been changed to α .

Each of these changes is consistent with the recitations in the text concerning Figure 8, and the correct notations appear on and are fully supported by the informal drawings filed

that were also filed with the application. Thus, the changes to sheet 6 of the formal drawings (Figure 8) merely correct transcription or printing errors in the replacement formal drawings originally submitted, and bring the drawings into correspondence with the informal drawings filed with the application.

Also, in Claim 1, the term "x-ray source" has been changed to "x-ray tube." This change is merely a cosmetic change that is submitted to effect no change in the claimed method. Moreover, every workpiece (i.e., computed tomography imaging system) that would be encompassed by the recitation in the original claim would also be encompassed by the amended claim and vice versa, at least by implication from the claimed method.

The rejection of Claims 6, 7, 12, 21, and 22 under 35 U.S.C. § 102(b) as being anticipated by Gard et al. (US 5,550,889) is respectfully traversed.

The Office has indicated that Claim 8 would be allowable if rewritten in independent form. Applicant has amended Claim 6 to correspond to Claim 8 rewritten in independent form. Thus, Applicants submit that the rejection of Claim 6 no longer applies and should be withdrawn.

Claim 7 is directly dependent upon Claim 6. When the recitations of Claim 7 are considered in combination with the recitations of Claim 6, it is submitted that Claim 7 is likewise patentable over Gard et al.

The Office has indicated that Claim 17 would be allowable if rewritten in independent form. Claim 12 has been rewritten to include the features explicitly recited in Claims 16 and 17. Although Claims 16 and 17 are also indirectly dependent upon Claims 13, 14, and 15, the Office has acknowledged that the prior art fails to teach or make obvious a CT imaging system configured to utilize a transfer function to determine cathode bias voltage for the x-ray tube to compensate for the focal spot position shift as claimed in Claim 17. For this reason, it is submitted that Claim 12 is patentable over Gard et al.

This rejection no longer applies to Claim 16, which has been cancelled.

Claims 13, 14, and 15 are directly or indirectly dependent upon Claim 12. When the recitations of Claims 13, 14, and 15 are considered in combination with the recitations of Claim 12, it is submitted that Claims 13, 14, and 15 are also patentable over Gard et al.

Claim 21 has been rewritten as a claim dependent upon new independent Claim 23, which itself is an apparatus claim that parallels Claim 1 and includes corresponding patentable features therefrom. Thus, it is submitted that Claim 23 is patentable over Gard et al.

Claims 21 and 22 are directly or indirectly dependent upon Claim 23. When the recitations of Claims 21 and 22 are considered in combination with the recitations of Claim 23, it is submitted that Claims 21 and 22 are likewise patentable over Gard et al.

For the above reasons, it is requested that the rejection of Claims 6, 7, 12, 21, and 22 under 35 U.S.C. § 102(b) as being anticipated by Gard et al. be withdrawn.

The rejection of Claim 11 under 35 U.S.C. § 102(b) as being anticipated by Gard et al. (US 5,550,889) in view of Toth (US 6,866,419, hereinafter Toth '419) is respectfully traversed. (Applicant believes that this rejection should more properly be characterized and answered as a rejection under § 103 rather than as a rejection under section § 102).

Claim 6 has been rewritten to include the features from Claim 8 found to be patentable by the Office. Thus, Claim 6 is patentable over Gard et al. in view of Toth '419.

Claim 11 is directly dependent upon Claim 6. When the recitations of Claim 11 are considered in combination with the recitations of Claim 6, it is submitted that Claim 11 is likewise patentable over Gard et al. in view of Toth '419.

For the above reasons, it is requested that the rejection of Claim 11 under 35 U.S.C. § 102(b) (or under § 103) as being anticipated (or rendered obvious) by Gard et al. in view of Toth '419 be withdrawn.

The rejection of Claims 12-16 under 35 U.S.C. § 103(a) as being unpatentable over Toth et al. (U.S. 6,411,677, hereinafter Toth '677) in view of Hell et al. (US 6,178,226 B1) is respectfully traversed.

As indicated above, Claim 12 has been amended to include features from Claims 16 and 17 that were described by the Office in the Office Action as neither taught nor made obvious by the prior art. For these reasons, it is submitted that Claim 12 is patentable over Toth '677 in view of Hell et al.

This rejection no longer applies to Claim 16, which has been cancelled.

Claims 13-15 depend directly or indirectly upon Claim 12. When the recitations of Claims 13-15 are considered in combination with the recitations of Claim 12, it is submitted that Claims 13-15 are likewise patentable over Toth '677 in view of Hell et al.

For these reasons, it is requested that the rejection of Claims 12-16 under 35 U.S.C. § 103(a) as being unpatentable over Toth '677 in view of Hell et al. be withdrawn.

The rejection of Claim 19 under 35 U.S.C. 103(a) as being unpatentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Zastrow et al. (US 6,424,697 B1) is respectfully traversed.

As indicated above, Claim 12 has been amended to include features from Claims 16 and 17 that were described by the Office in the Office Action as neither taught nor made obvious by the prior art. For these reasons, it is submitted that Claim 12 is patentable over Toth '677 in view of Hell et al. and further in view of Zastrow et al.

Claim 19 is directly dependent upon Claim 12. When the recitations of Claim 19 are considered in combination with the recitations of Claim 12, it is submitted that Claim 19 is likewise patentable over Toth '677 in view of Hell et al. and further in view of Zastrow et al.

For the above reasons, it is requested that the rejection of Claim 19 under 35 U.S.C. 103(a) as being unpatentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Zastrow et al. be withdrawn.

The rejection of Claim 20 under 35 U.S.C. 103(a) as being unpatentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Gard et al. is respectfully traversed.

Claim 20 has been amended so that it is now dependent upon new Claim 23, which itself is an apparatus claim that parallels Claim 1 and includes corresponding patentable features therefrom. Thus, it is submitted that Claim 23 is patentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Gard et al.

Claim 20 is directly dependent upon Claim 23. When the recitations of Claim 20 are considered in combination with the recitations of Claim 23, it is submitted that Claim 20 is likewise patentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Gard et al.

For the above reasons, it is requested that the rejection of Claim 20 under 35 U.S.C. 103(a) as being unpatentable over Toth '677 and Hell et al. as applied to Claim 12 and further in view of Gard et al. be withdrawn.

Claim 23 is new, but as indicated above, it parallels Claim 1 and recites corresponding subject matter found patentable by the Office in the most recent Office Action. For these reasons, it is submitted that Claim 23 is patentable over the prior art of record.

Claims 8-10, 17, and 18 were objected to as being dependent upon a rejected base claim, but were otherwise indicated as containing allowable subject matter. This objection is respectfully traversed.

The objection no longer applies to Claim 8, which has been cancelled, but the features of Claim 8 have been incorporated into independent Claim 6. Thus, Claim 6 now is equivalent to Claim 8 rewritten in independent form, and is therefore submitted to be allowable as written. Claim 9 has been amended to be dependent upon Claim 6 rather than Claim 8, and Claim 10 is dependent upon Claim 9. When the recitations of Claims 9 and 10 are considered in combination with those of Claim 6 as herein amended, it is submitted that Claims 9 and 10 are now also allowable as written.

Claims 17 and 18 were objected to as being dependent upon a rejected base claim, but were otherwise indicated as containing allowable subject matter. This objection is respectfully traversed.

The objection no longer applies to Claim 17, which has been cancelled. However, the specific features cited by the Office in Claim 17 as not being taught or made obvious by the prior art have been incorporated into Claim 12. Thus, it is submitted that Claim 12 as herein amended, is allowable as written. Claim 18 has been amended to be dependent upon Claim 12 rather than Claim 17. When the recitations of Claim 18 are considered in combination with the recitations of Claim 12, it is submitted that Claim 18 is also allowable as written.

Applicants gratefully acknowledge the indication that Claims 1-5 are allowed. As indicated above, Claim 1 has been amended for cosmetic reasons, but no substantive change has been made to any of Claims 1 and 5.

The statement of reasons for allowable subject matter indicate that Claims 17-20 contain allowable subject matter. Because the Office gave explicit grounds for rejecting Claims 19 and 20, it is presumed that the Office intended the reasons for allowable subject matter to apply to Claims 17 and 18 rather than 17-20.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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IN THE DRAWINGS

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The corrections on the replacement formal drawing replacing sheet 6 of the original formal drawings are as follows:

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The legend $Z \text{ SHIFT} = D$ has been changed to $Z \text{ SHIFT} = \Delta$.

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The angle with indicated measurement a has been changed to α .

Further details of this change are explained in the "Remarks" section below.